

REMARKS

Status of the Claims

Claims 10-18 are currently pending in the application. Claims 10-17 stand rejected. Claims 10 and 11 have been amended. Claims 1-9 have been cancelled. All amendments and cancellations are made without prejudice or disclaimer. No new matter has been added by way of the present amendments. Specifically, the amendment to claims 10 and 11 are supported by the specification at, for instance, paragraphs [0004] and [0022]. New claim 18 is supported by the specification at, for instance, Example 3 (the solvent is DMSO and the base is cesium carbonate) and Example 4 (the solvent is DMSO and the base is potassium t-butoxide). Reconsideration is respectfully requested.

Restriction Requirement

Applicants affirm election of Group II, claims 10-17, as described in the Office Action of June 26, 2008, at page 2 (hereinafter, "Office Action"). Applicants further note that non-elected claims 1-9 have been cancelled herein without prejudice or disclaimer.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 10-17 stand rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. (*See*, Office Action, at page 3). Applicants traverse the rejection.

The Examiner states that claim 10 is indefinite because it states that R¹ and R² are defined as above, but that no definition for R² is provided in claims 1-9. Applicants have amended claim

10 to recite definitions for both R^1 and R^2 as requested by the Examiner. Applicants believe these definitions are fully supported by the specification at, for instance, paragraph [0004] and original claim 1.

Since no specific reasoning is provided for the rejection of dependent claims 11-17, these claims are also believed to be definite for, *inter alia*, depending from a definite base claim, amended claim 10.

Reconsideration and withdrawal of the indefiniteness rejection of claims 10-17 are respectfully requested.

Rejections Under 35 U.S.C. § 103(a)

Claims 10-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Funahashi et al., U.S. Patent No. 7,253,286 (hereinafter, "Funahashi et al."). (*See*, Office Action, at page 4). Applicants traverse the rejection as hereinafter set forth.

The Examiner states that the compounds of Examples 417, 619 and 620 of Funahashi et al. overlap with compound (C) of claim 10. However, the synthetic route utilized by Funahashi et al. yields only 25.5%, as disclosed in Example 368.

However, as explained in the Declaration under 37 C.F.R. § 1.132, by Dr. Toshihiko Naito, submitted herewith, Applicants' process remarkably achieves a yield of 67.8%. The two processes, that of Funahashi et al. and that of the presently claimed invention, are compared in the scheme attached to the Declaration under 37 C.F.R. § 1.132 which is submitted herewith. One of ordinary skill in the art would not expect to achieve such a remarkably high yield, as demonstrated by Applicants' process.

The Declaration of Dr. Toshihiko Naito explains that the Examples of Funahashi et al. utilize the Production Method 2-2 including Examples 81 and 86-2. However, the yields achieved by Funahashi et al. in these examples are only 16.07% and 43.52%, respectively. In contrast, Examples 3 and 4 of the presently claimed invention, utilizing Applicants' claimed process, achieves remarkable yields of 88% and 96.3%, respectively.

As pointed out in the Declaration, Applicants' process, providing a total yield of final product of 67.8%, is a marked improvement over the process of Funahashi et al., which reports a yield of only 25.5%. Thus, the present invention improves the final yield by more than 100%. One of ordinary skill in the art would certainly not have predicted that such unexpectedly high yields could be achieved, based on the cited reference.

Additionally, the solvent utilized in Examples 81 and 86-2 of Funahashi et al. is 1-methylpyrrolidone and the base is diisopropylethylamine. Applicants note that new claim 18 provides the additional limitation that the solvent is DMSO and the base is cesium carbonate or potassium t-butoxide.

Graham v. John Deere, 383 U.S. 1, 17, 148 U.S.P.Q. 459, 467 (1966) provides the controlling framework for an obviousness analysis. A proper analysis under 35 U.S.C. § 103(a) requires consideration of the four *Graham* factors of: (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims that are at issue; (3) resolving the level of ordinary skill in the pertinent art; and (4) evaluating any evidence of secondary considerations (e.g., commercial success; unexpected results). (See, *Graham v. John Deere*, 383 U.S. at 17, 148 U.S.P.Q. at 467).

Funahashi et al. do not disclose or suggest all of the limitations of the presently claimed process. Furthermore, even if, *arguendo*, the Examiner believes that Funahashi et al. disclose or suggest all of the claimed limitations, all four *Graham* factors must be considered when determining obviousness. Particularly, in light of the objective evidence of unexpected results provided in Applicants' specification, and submitted herewith by way of Declaration, the balance of the *Graham* factor test decidedly tips in favor of a finding of non-obviousness because Applicants' process clearly provides an unexpectedly high yield as compared to the Funahashi et al. process. Applicants therefore believe that the Examiner has failed to establish a *prima facie* case of obviousness with respect to the presently claimed process.

For the foregoing reasons, reconsideration and withdrawal of the obviousness rejection of claims 10-17 are respectfully requested.

CONCLUSION

If the Examiner has any questions or comments, please contact Thomas J. Siepmann, Ph.D., Registration No 57,374, at the offices of Birch, Stewart, Kolasch & Birch, LLP.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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Attachment: Declaration of Dr. Toshihiko Naito dated September 30, 2008